Integrating socio-economic benefits
into natural (forest) resource management

Literature Review

supporting
Living Legacy Trust FP 4: Forest Science Data Collection and Research
Science priority 9: Socio-economic benefits

by Linda Ehrichs
April 30, 2002

Ashton, Peter G. and James B. Pickens (1995) **Employment diversity and economic performance in small, resource-dependent communities near western national forests.** *Society and Natural Resources* 8 (1995): 231-241. London, UK: Taylor & Francis.

Abstract: This study aims to clarify relationships between the US Department of Agriculture (USDA) Forest Service programs and the economies of affected small rural communities. The study addresses two main issues: dependence of sample communities on employment associated with Forest Service programs and the relationship between employment diversity and economic performance. A relatively strong case can be made that counties with high employment diversity are better able to cope with changing economic conditions than less diverse counties over time. Thus the effort to facilitate diversification of dependent communities appears to be an appropriate goal. However, short-term fluctuations that might be expected to change the diversity of an economy did not seem to have an effect

Access through: Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group. UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm.

Beckley, Thomas M. (1995) **Community stability and the relationship between economic and social well-being in forest-dependent communities**. *Society and Natural Resources* 8 (1995): 261-266. London, UK: Taylor & Francis.

Abstract:
A predominant assumption among many academics, policy makers and lay persons is that economic and social well-being are closely linked. As a result, policy efforts intended to improve social well-being are often directed toward economic variables. While many connections between social and economic well-being do exist, there are also aspects of social well-being that are only weakly or indirectly connected to economic variables. At the nexus of economic and social well-being is the notion of community stability This paper discusses ways to better assess the health, vitality and long-term sustainability of communities that depend largely on forests as an economic lifeline.

Access through: Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group. UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm.

Bengston D.N. [1]; Fan D.P. [2]; Celarier D.N. [3] (1999) **A new approach to monitoring the social environment for natural resource management and policy: The case of US national forest benefits and values.** *Journal of Environmental Management*, July 1999, vol. 56, no. 3, pp. 181-193(13) Publisher: Academic Press.

[1] North Central Research Station, 1992 Folwell Avenue, St Paul, MN 55108, USA [2] University of Minnesota, Department of Genetics and Cell Biology, St Paul, MN 55108, USA [3] USDA Forest Service, Office of Communication, Washington DC, 20090, PO Box 96090, USA

Abstract:
This paper describes a new approach for monitoring the social environment for natural resource management and policy, based on content analysis of online news media stories. Content analysis of the media has repeatedly been shown to produce results that are closely correlated with attitude surveys and opinion polls. Computer methods were used to analyse almost 30 000 online news stories about the US national forests for expressions of four broad categories of benefits and values. Recreation benefits and values were expressed more often than other categories, both at the national and regional levels, followed by commodity, ecological and moral/spiritual/aesthetic benefits and values. Over the years 1992 through 1996, a gradual upward trend was found in expressions of recreation and moral/spiritual/aesthetic benefits and values and a gradual downward trend was found in expressions of commodity-related benefits and values at the national level, suggesting shifting environmental values and the need to ensure that natural resource management and policy are responsive to changing social values. Computer content analysis of online news stories provides a new method for the continuous monitoring and assessment of a broad range of trends in the social environment in which natural resource decision making takes place.

Access through: www.ingenta.com
Publisher's address: Academic Press, Harcourt Place, 32 Jamestown Road, London, NW1 7BY, U.K.
website: www.academicpress.com

Bensel, T. (2001) **Promoting certified sustainable forestry on private woodlots in north-western Pennsylvania: challenges and opportunities.** *Local environment*, Aug 2001, Vol.6, No.3, pp.257-278. Carfax Publishing, Taylor & Francis Ltd.

Abstract:
Third-party certification of forest management practices is being touted as a means of promoting more sustainable forestry globally. Certification occurs when a forest owner voluntarily requests an independent certification body to inspect their lands and practices relative to standards and criteria set forth by the certifying body. The Forest Stewardship Council (FSC) has emerged in recent years as the global leader in third-party forest certification, and to date approximately 22 million hectares of forests have been certified globally by FSC-accredited certifiers. The future success of forest certification efforts will depend in large part on continued growth in the area under certification, and one key area of concern in this regard has been the slow pace of certification of non-industrial private forest (NIPF) lands. This paper assesses the prospects for and barriers to forest certification of NIPF lands in north-western Pennsylvania, an area characterised by high-value hardwood forests and high rates of NIPF ownership.

Access through: Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group, UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm.

Berglund, E. (2001) **Facts, beliefs and biases: perspectives on forest conservation in Finland.** *Journal of environmental planning and management*, Nov 2001, Vol.44, No.6, pp.833-850. Carfax Publishing, Taylor & Francis Ltd.

Abstract:
The history of forestry in Finland demonstrates that the management of nature is embedded in social and economic institutions. That these institutions have cultural dimensions needs to be recognized if current conflicts over forests are to be resolved. Drawing insights from social studies of science and technology, the paper explores
Finland's 'forest war', which is carried out in strikingly science-based terms. It shows that debate has been carried out within the bounds of what official expertise on forests has long deemed acceptable, where the conservationist side of the argument also draws on scientific claims which are constructed, not neutral or extra-social facts. Since social and cultural factors are central to resource management even where debate is pursued in adamantly technical and scientific language, it needs to be recognized that 'nature' is not sufficient grounds for policy, but nor is 'the economy'

Access through: Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group, UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm

Brewer, Cam (2002) **The Canadian Eco-Lumber Co-op.** *Ecoforestry* 17(1):9-11, Spring 2002. Victoria, BC: Ecoforestry institute.

Abstract:
The demand for FSC wood products is far greater than the supply, but there are significant barriers to overcome before the blessings of a boom market come to smaller, community-based eco-certified operations. The Canadian Eco-Lumber Co-op is a major step toward making that happen

Access through: www.ecoforestry.ca
Available at some Ontario university libraries including University of Toronto, University of Waterloo

Blumenthal, D. and J. L. Jannink. 2000. **A classification of collaborative management methods**. *Conservation Ecology* 4(2): 13. Published by Resilience Alliance.

Abstract:
Collaboration among multiple stakeholders can be crucial to the success of natural resource management. In recent years, a wide variety of methods have been developed to facilitate such collaboration. Because these methods are relatively new and come from different disciplines, little attention has been paid to drawing comparisons among them. Thus, it is very difficult for potential users to sort through the increasingly large literature regarding such methods. We suggest the use of a consistent framework for comparing collaborative management methods, and develop such a framework based on five criteria: participation, institutional analysis, simplification of the natural resource, spatial scale, and stages in the process of natural resource management. We then apply this framework to six of the more commonly cited methods: soft systems analysis, adaptive management, ecosystem management, agroecosystem analysis, rapid rural appraisal and participatory rural appraisal. Important differences among methods were found in prescriptions for stakeholder participation, institutional analysis, and simplification of complex natural resources. Despite such differences, the methods are surprisingly similar overall. All methods are applicable at the scale of a watershed. Most of the methods include techniques for understanding complex natural resources, but not complex social institutions, and most include monitoring and assessment as well as planning. Our comparisons suggest that, although much work has been done to improve collaborative management of natural resources, both in the development of collaborative methods and in related social science disciplines, the results have not been

shared among disciplines. Further organization and classification of this work is therefore necessary to make it more accessible to both practitioners and students of collaborative management.

Access through: http://www.consecol.org/vol4/iss2/art13

Buchy, M. and Race, D. (2001) **The twists and turns of community participation in natural resource management in Australia: what is missing?** *Journal of environmental planning and management*, May 2001, Vol.44, No.3, pp.293-308. Carfax Publishing, Taylor & Francis Ltd.

Abstract:
Aspects of Australian natural resource management, particularly forestry, such as harvesting from public native forests and establishing large-scale plantations on farmland, have been contentious for many years. In response to such contention with forestry development, local communities are increasingly seeking a role in determining the use and management of forest resources. Despite a growing acceptance of the need for community participation, there has been little analysis of the type and extent of participation that is most effective, and of the costs and benefits of participation in natural resource management. This paper draws on international and Australian experiences to provide a conceptual framework for analysing the role of participation in natural resource management, especially forestry. The authors provide three examples of how community participation has been developed in Australia, and aim to stimulate discussion on the wider role of participation in natural resource management.

Access through: Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group, UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm.

Colfer, C.J.P., Brocklesby, M.A., Diaw et al. (1999) **The BAG (Basic Assessment Guide for Human Well-Being),** as part of the CIFOR's Criteria and Indicators ToolBox Series
and
Colfer, C.J.P., Brocklesby, M.A., Diaw et al. (1999) **The Grab Bag: Supplementary Methods for Assessing Human Well-Being.** Criteria & Indicators Toolbox Series No. 6. CIFOR, Bogor, Indonesia.

Abstract:
The Basic Assessment Guide for Human Well-Being (or The BAG) focuses on the social criteria and indicators for sustainable forest management, a topic that has been the subject of considerable controversy and uncertainty. It is designed for people interested in assessing sustainable forest management, but who do not have a high degree of expertise in social sciences. The six simple methods described in this manual are designed for use by biophysical scientists with a college education. They can also be used by assessors with higher levels of expertise in social sciences, but they are presented in a 'cookbook' format. The Scoring and Analysis Guide, meant to be used with The BAG, provides additional help in making assessments of human well being, including a specific scoring method. It also provides increasingly detailed levels of guidance in analysis.

Access through website: http://www.cifor.cgiar.org/acm/pub/toolbox.html

Colfer, C.P.J., Prabhu, R., Günter, M., McDougall, C., Porro, N.M. and Porro, R. (1999) **Who Counts Most? Assessing Human Well-Being in Sustainable Forest Management.** as part of the CIFOR's Criteria and Indicators ToolBox Series. Published by CIFOR.

Abstract
Who Counts Most? Assessing Human Well-Being in Sustainable Forest Management presents a tool, 'the Who Counts Matrix', for differentiating 'forest actors', or people whose well-being and forest management are intimately intertwined, from other stakeholders. The authors argue for focusing formal attention on forest actors in efforts to develop sustainable forest management. They suggest seven dimensions by which forest actors can be differentiated from other stakeholders, and a simple scoring technique for use by formal managers in determining whose well-being must form an integral part of sustainable forest management in a given locale. Building on the work carried out by the Center for International Forestry Research (CIFOR) on criteria and indicators, they present three illustrative sets of stakeholders, from Indonesia, Côte d'Ivoire and the United States, and Who Counts Matrices from seven trials, in an appendix.

Access through website: http://www.cifor.cgiar.org/acm/pub/toolbox.html

Cortes Ecoforestry Society (2001), **A Model Partnership: The Cortes Initiative is a unique collaboration between a First Nation, timber company and non-aboriginal community**. CES-Klahoose Partnership: Cortes Island, B.C.

Abstract (adapted from website)
The Klahoose First Nation has led the way in pursuing ecosystem-based forestry on Cortes Island. In July, 1999, Cortes Ecoforestry Society (CES) and the Klahoose First Nation signed a Memorandum of Understanding creating a model of co-operation and good will between a native and non-aboriginal community, agreeing to work together to protect the common interest in healthy island ecosystems through ecosystem-based forest management. CES-Weyerhaeuser Partnership The private land-holding company, Weyerhaeuser has expended significant time and resources in its attempt to reach a solution for its Cortes Island holdings that is acceptable to CES and the Klahoose First Nation. CES and Weyerhaeuser plan to return to the provincial government with "The Cortes Initiative." This proposal will recommend an exchange of some of Weyerhaeuser's Cortes Island holdings for equal value in Crown land elsewhere. Weyerhaeuser's lands, and the existing Crown lands, will then become the Cortes Community Forest, to be managed using principles of ecosystem-based forestry. This approach will increase Weyerhaeuser's ability to manage its land efficiently and will increase revenue to the provincial government by opening lands for logging that are currently inaccessible due to community opposition to industrial forestry. When tenure over the proposed Cortes Community Forest land base is obtained, CES will continue its work toward an equal management partnership between the Klahoose First Nation and Cortes Ecoforestry Society.

Access through http://oberon.ark.com/~ces/

Crone, L.K. and Haynes, R. W. (2001) **Socioeconomic evaluation of broad-scale land management strategies.** *Forest Ecology and Management*, Vol. 53, Issues 1-3, 1 October 2001, pp. 147-160 Published by Elsevier Science.

Abstract
This paper examines the socioeconomic effects of alternative management strategies for Forest Service and Bureau of Land Management lands in the interior Columbia basin. From a broad-scale perspective, there is little impact or variation between alternatives in terms of changes in total economic activity or social conditions in the region. However, adopting a finer scale and examining affects on the counties that

are likely to be most impacted by federal lands management reveals that many of these counties may be better off under one alternative in the short term, but better off under another alternative in the longer term. The agencies can reduce their short-term impacts on federal resource-reliant counties with low socioeconomic resiliency, by concentrating initial restoration efforts in specific areas, but the environmental justice issues associated with such a policy should also be considered.

Access through www.ingenta.com
Registered access through Science Direct: http://www.sciencedirect.com/
Authors addresses:
Lisa Crone: Chugach National Forest Planning Team, Anchorage, AK, USA
Richard Haynes: USDA Forest Service, Pacific Northwest Research Station, P.O. Box 3890, Portland, OR 97208, USA

Danks, C. (2000) **Community forestry initiatives for the creation of sustainable rural livelihoods: a case from North America** in*" Unasylva: An international journal of forestry and forest industries* - Vol. 51- 2000/3, No. 202 *"Forests, food security and sustainable livelihoods*. Published by FAO.

Abstract:
Unasylva issue looking at different perpectives on issues of physical and economic access to food for forest dependent peoples. Articles are structured as a series of case studies from around the world to analyse the linkages between food security and problems such as degradation and deforestation. Further articles explore the effectiveness of various solutions based on community forestry approaches.

Full-article available through website:
http://www.fao.org/waicent/faoinfo/forestry/FODA/UNASYLVA/unasyl-e.stm

Fall A. [1]; Daust D. [2]; Morgan D.G. [3] (2001) **A Framework and Software Tool to Support Collaborative Landscape Analysis: Fitting Square Pegs into Square Holes.** *Transactions in GIS*, January 2001, vol. 5, no. 1, pp. 67-86(20). Blackwell Publishing.

[1] Simon Fraser University [2] Research Consultant [3] B.C. Ministry of Forest

Abstract:
For landscape models to be applied successfully in management situations, models must address appropriate questions, include relevant processes and interactions, be perceived as credible and involve people affected by decisions. We propose a framework for collaborative model building that can address these issues, and has its roots in adaptive management, computer-supported collaborative work and landscape ecology. Models built through this framework integrate a variety of information sources, address relevant questions, and are customized for the particular landscape and policy environment under study. Participants are involved in the process from the start, and because their input is incorporated, they feel ownership of the resulting models, increasing the chance of model acceptance and application. There are two requirements for success: a tool that supports rapid model prototyping and modification, that makes a clear link between a conceptual and implemented model, and that has the ability to implement a wide range of model types; and a core team with skills in communication, research and analysis, and knowledge of ecology and forestry in addition to modelling. SELES (Spatially Explicit Landscape Event Simulator) is a tool for building and running models of landscape dynamics. It combines discrete event simulation with a spatial database and a relatively simple modelling language to allow rapid development of landscape simulations, and provides a high-level means of specifying complex model behaviours ranging from management actions to natural disturbance and succession. We have applied our framework in several forest modelling projects in British Columbia, Canada. We have found that this framework increases the interest by local experts and decision-makers to participate actively in the model building process. The workshop process and resulting models have efficiently provided insight into the

dynamics of large landscapes over long time frames. The use of SELES has facilitated this process by providing a flexible, transparent environment in which models can be rapidly implemented and refined. As a result, model findings may be more readily incorporated into decision-support systems designed to assist resource managers in making informed decisions.

Registered access through www.ingenta.com and http://www.blackwellpublishers.co.uk/

Ficklin R.L. [1]; Dunn E.G. [1]; Dwyer J.P. [1](1996) **Ecosystem Management on Public Lands: An Application of Optimal Externality to Timber Production.** *Journal of Environmental Management* 1996, vol. 46, no. 4, pp. 395-402. Publisher: Academic Press.
[1] The School of Natural Resources, 1-30 Agriculture Building, University of Missouri, Columbia, Missouri 65211, U.S.A.

Abstract:
While there are increasing numbers of non-consumptive forest uses on public lands, some silvicultural management systems provide little flexibility for the realization of non-commodity values. Traditional economic decision-making tools, such as net present value, are often applied in a manner which inadequately accounts for the full value of the resource. As a result, sub-optimal management practices are often implemented. By applying a marginal analysis of the optimal externality of different silvicultural systems, it is possible to identify the optimal timber management strategy in terms of the total costs of the timber harvest under alternative uses. Although difficulties arise in valuing non-consumptive uses, contingent valuation with averting costs estimates can establish a lower bound on society's willingness to pay for foregone timber harvesting. Low impact harvest operations and "new forestry" techniques, such as selection harvest cuts, are helpful in reducing the external costs of timber cutting. Therefore, the implementation of such systems may actually increase the socially optimal area of public lands to be harvested under a multiple-use designation.

Access through: www.ingenta.com
Publisher's address: Academic Press, Harcourt Place, 32 Jamestown Road, London, NW1 7BY, U.K.
website: www.academicpress.com

Gerlagh R.; Keyzer M.A. (2001) **Sustainability and the intergenerational distribution of natural resource entitlements.** *Journal of Public Economics*, Volume 79, Issue 2, February 2001, Pages 315-34. Publisher: Elsevier Science.

Abstract:
The paper describes an OLG economy with a single exhaustible resource that has amenity value. The steady states of this economy form a continuum, implying path-dependency. We compare three policy scenarios; first, a 'zero extraction' policy of enforced conservation that avoids environmental degradation, possibly at the expense of intertemporal efficiency. Second, a 'grandfathering' policy that endows the present generations with all resources, and that ensures efficiency but cannot prevent a persistent decline in lifetime utility from one generation to the next. Third, a 'trust fund' policy, where future generations receive claims for the natural resource. Of the three, only the trust fund ensures efficiency and protects welfare of all generations.

Access through: www.ingenta.com
Registered access through Science Direct: http://www.sciencedirect.com/

Hall, J. (1997) **Canada's Model Forest Program – bringing community forest values into the development of sustainable forest management in the Canadian context.** *South-North Links in Rural Development Forestry*, Rural Development Forestry Network Papers, Issue 20 Winter 1996/1997. London, UK: Overseas Development Institute.

Abstract:
The Canadian Forest Service initiated the Model Forest Programme in 1991. Ten sites representing the major forest regions of Canada were selected as model forests to provide experimental and nationally applicable examples of sustainable forest management. Various model forests have tested approaches to tenurial arrangements, management for multiple use, monitoring, ecological and socio-economic research, decision support and organisational structure. All the model forests have been managed by partnerships among stakeholders from a broad range of interest groups. The second phase of the programme aimed to build on the successes of these partnerships and in particular to establish a model forest under traditional management by aboriginal people.

Access through:
Rural Development Forestry Network,
Overseas Development Institute,
Portland House, Stag Place, London, SW1E 5DP, UK
website: www.odi.org.uk
email: forestry@odi.org.uk
Additional information and documents:
CIDA Forestry Advisers Network (CFAN) at http://www.rcfa-cfan.org
International Model Forest Network at http://www.idrc.ca/imfn/

Hobley, M. and Shields, D. (2000) **The Reality of Trying to Transform Structures and Processes: Forestry in Rural Livelihoods.** ODI Working Paper 132. London, UK: Overseas Development Institute.

Abstract: (adapted from summary)
Within the forest sector, key constraints to improving forest-based livelihoods lie in the institutional environment and in particular in the relationships between and within the forest department, the forest users and the political (or enabling) environment. The Western Ghats Forestry Project, in Karnataka, India, the focus of this working paper, is used to illustrate the processes and problems of supporting change in the forestry institutional environment in which rural livelihoods are constructed.
Although the project was not designed within a livelihoods framework, its emphasis on 'people-centred, responsive and multi-level approaches' (Ashley and Carney, 1999) means that it has much experience to offer to those interested in the livelihoods approach. The paper presents a framework to analyse and consider the nature and functions of different agencies in the forest environment of the Western Ghats and examines the relationship between these agencies and development of livelihood assets. It focuses in particular on experience with trying to change structures and processes within a forest sector delivery organisation. This is based on the premise that unless there is fundamental internal change within the main delivery organisation there will be little or no change in their external relationships with forest users, and thus no sustained change in access or influence over key livelihood assets.

Full text available at: http://www.odi.org.uk/publications

Hunt L.; Haider W (2001) **Fair and Effective Decision Making in Forest Management Planning.** *Society and Natural Resources*, 1 December 2001, vol. 14, no. 10, pp. 873-887 (15) Publisher: Taylor and Francis Ltd.

Abstract:
Creating a fair and effective decision-making process in forest management planning is more than a lofty public policy goal; it is increasingly becoming a legal requirement. An integral component of a fair and effective decision-making process is an effective public involvement process. By increasing public involvement, both the process and outcomes from the process should be perceived as fairer and, consequently, more effective. This study examines the utility of applying the social psychology paradigm of procedural fairness to decision-making processes in forest management planning. Specifically, we examine whether the involvement level that resource-based tourism operators have with Ontario's forest management planning process influences their evaluations of the process and outcomes from the process. The study also contributes toward identifying effective and measurable indicators to assess fair and effective decision making in forest management planning, which could serve in a criteria and indicator framework of forest sustainability.

Access through Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group, UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm

King L.A.; Hood V.L. (1999) **Ecosystem Health and Sustainable Communities: North and South.** *Ecosystem Health*, March 1999, vol. 5, no. 1, pp. 49-57(9). Blackwell Publishing.

Abstract:
It is at the local/community level that the connections among ecosystem health, the health of human communities, and individual livelihoods are most apparent and critical. This paper reports a number of community initiatives aimed at improving or providing alternative livelihoods, while at the same time conserving or restoring the integrity of the ecosystem on which the community depends. It presents case studies of Zimbabwe's CAMPFIRE (Communal Areas Management Program for Indigenous Resources) and Akwesasne in northeastern North America, as well as examples from northern Canada, of communities that have attempted to integrate economic development, community values/culture, and the restoration of ecosystem and community health. In both the north and the south these communities face ecological pressures such as climate change, industrial pollution, loss of diversity and productivity, deforestation, and resulting loss of traditional livelihood strategies. They are also victims of global economic forces, economic and institutional globalization, and are struggling to make adaptive responses. Common themes are identified across the case studies and we identify the need for indicators and programs that recognize and reinforce the interconnections and guide development programs that integrate community and ecosystem health and sustainability.

Access through: www.ingenta.com/isis/register
Publisher: http://www.blackwellpublishing.com/

Kirkby, J.; Moyo, S. (2000) **What is the relationship between land degradation and poverty?** ETC International: Netherlands.

Abstract:
This article outlines the main contributions made to a collection of essays, devoted to exploring the relation between land degradation and poverty.
Themes explored:

- Opinions and interpretations of environmental maintenance, creation, transformation and transitions are hotly contested issues
- Certain experts, employing a neo-Malthusian explanatory model, believe that inappropriate land management practices and inappropriate technologies, added to the effects of population pressure, are widely believed to cause deforestation, soil erosion, desertification, loss of biodiversity and climate change
- Other experts, employing a Boserupian explanatory model, question this disaster narrative and emphasise indigenous rural land users ability to maintain and increase environmental productivy and balance. Often, such environmental feats are created by ordinary people adapting to livelihood opportunities

These arguments have motivated a search for more detailed consideration of the Social, Political, Cultural, and Economic agendas of the actors in the environmental management system. These include

- Political ecology or the study of the politicised environment. Political ecology has two major modes:
    - **Eco-imperialist**. The outcome in environmental change is determined by the relative powers of agents with conflicting agendas
    - **Eco-populism**. Emphasises the 'local'and the 'specific'
- Governance, social justice, democracy and human rights and how it relates to ecology
- Environmental security
- Sustaining livelihood, coping and entitlement
- Marginality and vulnerability

Access through: http://www.etcint.org/
Address: ETC Netherlands B.V. Kastanjelaan 5 P.O. Box 64 3830 AB Leusden The Netherlands
Telephone: +31 334943086
Fax: +31 33 4940791
Fax: office@etcnl.nl

Klooster, DJ (2002) **Toward adaptive community forest management: integrating local forest knowledge with scientific forestry.** *Economic Geography*, Jan 2002, Vol.78, No.1, pp.43-70. Publisher: Clark University.

Abstract:
This case study of indigenous communities in highland Michoacán, Mexico, examines data on forest change, woodcutting practices, social history, and a recent forest inventory and management plan prepared by a professional forester. It assesses the social and environmental fit of both local knowledge and scientific forestry and considers their abilities to contribute to sustainable forest management. Both bodies of knowledge are limited in their ability to inform the social practice of environmental management. The local forest knowledge system is particularly hampered by a limited ability to monitor the forest's response to wood-cutting, while scientific forestry lacks the institutional flexibility to ensure the just and effective implementation of restrictions and prescriptions. This article recommends cross-learning between scientific resource managers and woodcutters, participatory environmental monitoring to assess the results of different cutting techniques, and explicit management experiments to facilitate institutional learning at the community level. This kind of adaptive management approach permits the flexible integration of local knowledge, scientific forestry, and appropriate institutional parameters to modulate human needs and goals with the discordant harmonies of inhabited and heavily used forests in a constant

state of flux under processes of succession, disturbance, and spatial variation. Several barriers to this kind of institutional innovation exist, but outside intervention has the potential to change the dynamics of institutional evolution.

Access through: www.eldis.ac.uk
Institutional access through: http://www.jstor.org/cgi-

Mayers, J. (2000) : **Company-community forestry partnerships: a growing phenomenon** in *Unasylva: An international journal of forestry and forest industries*, Vol. 51 - 2000/1. No. 200 Trees outside Forests. Published by FAO.

Abstract:
This article examines the relatively new, but growing, range of company-community relationships for the production of forest goods- out-grower schemes, joint ventures, other contracts and informal arrangements - and discusses their advantages and disadvantages in relation to trees outside forests. Emerging lessons are identified on the potential of partnerships to deliver security of forest goods and services and the conditions under which good partnerships develop.
Emerging lessons include:

- Partnerships are risk-sharing arrangements which are highly context specific
- Markets may be unstable and will change in the time it takes to grow trees
- Bargaining power varies and investment in it is needed
- Partnerships help smallholders but may not benefit the poorest
- Particular schemes often dissolve, but broader partnerships can live on
- Extension and technical support are crucial
- Whole communities present bigger challenges
- Third-party roles need to be clarified and developed
- Going beyond fibre production: sharing downstream benefits

Access through: www.eldis.org Sustainable Forestry site and also
http://www.fao.org/waicent/faoinfo/forestry/FODA/UNASYLVA/unasyl-e.stm

Mearns, R.; Leach, M.; Scoones, (2000) **The institutional dynamics of community-based natural resource management (CBNRM): an entitlements approach.** Institute of Development Studies, University of Sussex, UK.

Abstract:
This article begins by criticizing neo-Malthusian approaches to community-based resource management (CBNRM), which frames problems in terms of imbalances between social needs and aggregate resource availability. The article urges the need to start from the politics of resource access and control among diverse social actors. The article additionally sees environmental change as the outcome of negotiation or contestation between social actors who may have very different priorities in natural resource use and management.
The article is underpinned by an environmental entitlements framework, which represents an effort to move beyond the linking of static, undifferentiated 'communities' with an equally static 'environment', which has tended to underlie many practical attempts to support CBNRM. An entitlements approach situates 'a disaggregated (or "micro") analysis of the distinctive positions and vulnerabilities of particular [social actors] in relation to the "macro" structural conditions of the prevalent political economy'.
The relationships among institutions, and between scale levels, is of central importance in influencing which social actors (both those within the community and those at some remove from it) gain access to and control over local resources. And this perspective uses the insights of landscape history, and of historical approaches to ecology, to see how different people's uses of the environment in this context act, and interact with other's uses, to shape landscapes progressively over time.

Access through: http://www.ids.ac.uk/ids/env/index.html
Address: Kate Hawkins, Institute of Development Studies, University of Sussex, Brighton BN1 9RE, UK
Telephone: +44 (0) 1273 606261
Fax: +44 (0) 1273 621202/691647
Fax: k.hawkins@ids.ac.uk

Mahanty S.; Russell D. (2002) **High Stakes: Lessons from Stakeholder Groups in the Biodiversity Conservation Network.** *Society and Natural Resources*, 1 February 2002, vol. 15, no. 2, pp. 179-188(10). Publisher: Taylor and Francis Ltd.

Abstract:
Research in common property, participatory resource management, and community development points to the central importance of organizational arrangements in conservation and development interventions. The dilemma facing contemporary conservation practitioners is how best to assist and facilitate such arrangements in support of participatory resource management and sustainable livelihoods, given the range of organizations, societal processes, and structures in which interventions might engage. This article presents some key findings from a study of stakeholder groups at 4 project sites, with information from a further 16 sites, in the Biodiversity Conservation Network: (1) Longstanding organizations had an established community niche, but could become bogged down in bureaucratic procedures; (2) poor communication between organizations was common and could undermine resource management; and (3) charismatic individuals and local elite interests could dominate groups, diminishing their representativeness. Based on these findings, the article argues that conservation professionals need to build their capacity as facilitators and negotiators, paying greater attention to how stakeholder groups form and function, their links to wider arenas, and the aims and positions of groups and individuals.

Access through Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group. UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm

Moriarty P. (2002) **Sustainable Livelihoods Approaches: an explanation**. *Waterlines*, 1 January 2002, vol. 20, no. 3, pp. 4-6(3). Publisher: ITDG Publishing Journals.

Abstract:
The phrase 'Sustainable Livelihoods Approaches' is being increasingly well-used within development circles. This article looks at what the approach really means and how it can be used.

Access through: http://www.itdgpublishing.org.uk
Address: ITDG Publishing Journals
c/o Portland Press
Commerce Way
Whitehall Industrial Estate
Colchester
Essex
CO2 8HP
Tel: 01206 796351

Nelson A. (2001) **Two Models of Residential Conservation: communal life in an Australian box-ironbark forest.** *International Journal of Heritage Studies*, 1 September 2001, vol. 7, no. 3, pp. 249-272(24). Publisher: Routledge.

Abstract:
Grassroots community organisations offer simple ways of maintaining natural heritage values. Given the degradation of landscapes supporting fauna in many parts of the world, such organisations promise direct benefits for local communities and ecological biodiversity. Also, global warming, resulting in part from the removal of forest, will abate with the restoration of trees. The Bend of Islands (Victoria, Australia) boasts two organisations dedicated to the communal conservation of a landscape of remnant box-ironbark (eucalypt) forest. This woodland heritage is managed by residents to preserve its ecological values. The Round the Bend Conservation Co-operative (RBCC) is a land settlement co-operative. Members are committed to maintaining the local bushland in as natural a state as possible using minimal-impact environmental practices. The Bend of Islands Conservation Association (BICA) was established several years after the co-operative, but with the same environmental purpose. It covers a broader area, incorporating over 130 private land titles. This article describes the history and practices of RBCC and BICA and indicates their potential as models for the development of conservation principles and practices by other communities in similar landscapes.

Access through Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group, UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm

Prabhu, R. Colfer, C., and Shepherd, G. (1998) **Criteria and Indicators for Sustainable Forest Management: New Findings from CIFOR's Forest Management Unit Level Research** in *Rural Development Forestry Network Papers*, Issue 23 Summer 1998. London, UK: Overseas Development Institute.

Abstract:
Many sets of criteria and indicators (C&I) of sustainable forest management have been developed around the world. This paper reports the first steps taken by CIFOR towards creating a generic list of powerful and useable C&I. A computer programme, CIMAT, was being developed to facilitate choices over C&I sets by future users. An international series of field tests of various C&I sets showed that social criteria were more difficult to measure and had less commonality among sites than policy or forest management C&I, while ecology C&I were the most standardised and straightforward. The authors suggested that social C&I required more research, as did issues of biodiversity, plantations and links between local and national levels of assessment.

Access through Rural Development Forestry Network, Overseas Development Institute, Portland House, Stag Place, London, SW1E 5DP, United Kingdom, www.odi.org.uk email: forestry@odi.org.uk

Pregernig, M. (2002) **Perceptions, not facts: how forestry professionals decide on the restoration of degraded forest ecosystems.** *Journal of environmental planning and management*, Jan 2002, Vol.45, No.1, pp.25-38. Publisher: Carfax Publishing, Taylor & Francis Ltd.

Abstract:
The protection and sustainable management of forests make up one of the major challenges of the years to come. While deforestation is the main problem in the tropics and subtropics, the qualitative degradation of forest ecosystems is the focus of discussions in the temperate zones. From a sociopolitical point of view, the crucial question in this respect is how forestry professionals and forest owners can be prompted

to take active measures to restore degraded forest stands. Based on the theory of social constructivism and the model of symbolic interactionism, this paper shows that a person's readiness to implement restoration measures, *inter alia*, depends on the urgency of the problem. However, it does not (only) hinge on the 'objective' degree of damage, but (also) on the subjective problem perception of the decision maker. The empirical survey indicates, furthermore, that these subjective perceptions are-among other things-determined by social interactions. On the basis of these findings, we can derive a number of practical recommendations not just for science and research scientists, but especially for persons and institutions working in (further) education and in the field of extension services.

Access through Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group. UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm.

Ramírez, R. (1998) **Participatory learning and approaches for managing pluralism** in *Unasylva: An international journal of forestry and forest industries* - Vol. 49 - 1998/3 - No. 194 - Accommodating multiple interests in forestry. Published by FAO.

Abstract:
A *systems approach* is essential to understanding the complexity inherent in pluralistic resource management, because it addresses - in addition to a multitude of actors - other dimensions such as linkages between them, the performance of their relationships and the social, institutional and biophysical boundaries involved. The challenge is not in understanding a messy, complex system, but in "learning to navigate" in a changing environment and using new instruments. (adapted from author)

Ricardo Ramírez works with the International Support Group, a decentralized professional organization (a collaborative relationship with no central office) dedicated to linking local experience in agro-ecosystem management. He is based in Guelph, Canada.

Access through: http://www.fao.org/waicent/faoinfo/forestry/FODA/UNASYLVA/unasyl-e.stm

Shindler, B. and K. Aldred Cheek. (1999) **Integrating citizens in adaptive management: a propositional analysis.** *Conservation Ecology* 3 (1): 9. Published by Resilience Alliance.

Abstract
Lee has advocated for the use of *civic science* in the implementation of adaptive management experiments, noting that people and political processes are central features of adaptive approaches to land management. This paper explores the growing relationship between the public and forest management agencies, and uses a propositional analysis to guide methods for integrating citizens into adaptive management situations. Important characteristics are organized and discussed in six thematic areas. Citizen-agency interactions are more effective when (1) they are open and inclusive, (2) they are built on skilled leadership and interactive forums, (3) they include innovative and flexible methods, (4) involvement is early and continuous, (5) efforts result in action, and (6) they seek to build trust among participants. Particular attention to the situational context of actions and decisions helps to determine the relevance of adaptive management for individuals in these settings.

Access through: http://www.consecol.org/vol3/iss1/art9

Singleton, S. (2000) **Co-operation or capture? The paradox of co-management and community participation in natural resource management and environmental policy-making.** *Environmental politics*, Summer 2000, Vol.9, No.2, pp.1-21. Frank Cass & Co. Ltd.

Abstract
This article examines the conditions under which community-based management or co-management is likely to result in either (i) successful collaboration between a state agency and a local community or (ii) 'capture' of a public agency by private or special interests. The article focuses on the role of state agencies in the creation and maintenance of successful co-management regimes and discusses how state agencies can facilitate the creation of social trust while retaining independence and a concern for broader public interests. The author argues that a combination of bureaucratic autonomy and an effective, independent judiciary is an important institutional component for success. The argument is illustrated with the case of a co-management regime for salmon fisheries in the US Pacific Northwest.

Registered access through www.ingenta.com
Publisher's website: http://www.frankcass.com/jnls/ep.htm

Shaw III, C.G., Everest F.H., and Swanston, D.N. (2000) **Working with knowledge at the science/policy interface: a unique example from developing the Tongass Land Management Plan.** *Computers and Electronics in Agriculture* Volume 27, Issues 1-3, June 2000, pp. 377-387. Elsevier Science.

Abstract
An innovative, knowledge-based partnership between research scientists and resource managers in the U.S. Forest Service provided the foundation upon which the Forest Plan was developed that will guide management on the Tongass National Forest for the next 10–15 years. Criteria developed by the scientists to evaluate if management decisions were consistent with the available information base were applied to major components of the emerging final management strategy for the Forest. While the scientists remained value neutral on the contents of the Forest Plan and the management directions provided in it, their evaluation indicated that the decisions it contained for riparian and fish sustainability, wildlife viability, karst and cave protection, slope stability, timber resources, social/economic effects, and monitoring achieved a high degree of consistency with the available scientific information. The Forest Plan, revised to conform with existing scientific knowledge, represents a management strategy designed to sustain the diversity and productivity of the ecosystem while producing goods and services commensurate with the agency's multiple-use mandate. Execution of this research/management partnership highlighted the role of scientific knowledge in forestry decision-making and provided a new mechanism to input such information into the decision making process. The partnership continues as the scientists are addressing high priority information needs generated by the planning effort in order to have additional information available for plan implementation and revision through adaptive management over the next 3–5 years.

Access through www.ingenta.com
Registered access through Science Direct: http://www.sciencedirect.com/

Author's address:
Charles G. Shaw III
Forestry Sciences Laboratory, Pacific Northwest Research Station, USDA Forest Service, Suite 2A, 2770 Sherwood Lane, Juneau, AK 99801, USA
mailto:cgshaw@fs.fed.us

Smith. D. (2001) **Can SL Approaches learn from environmental mainstreaming?** Background paper to seminar on *Sustainable Livelihoods and Environment: Sharing Approaches and Principles*, November 1, 2001. London,UK: Department for International Development.

Abstract (adapted from article):
Sustainable livelihoods approaches and environmental mainstreaming have common aims: sustainable development. This paper looks at the experience of a range of approaches used in environmental mainstreaming, in developing and developed countries, to explore whether there could be more sharing of experience between environmental mainstreaming and sustainable livelihoods approaches.
Putting the principles of sustainable livelihoods into practice is raising challenges including the development of methodological tools, the challenge of basing macro policies on an understanding of livelihoods on the ground, and of creating sustainable institutional change, for example. Efforts to achieve environmental mainstreaming have faced similar challenges: how have they been addressed, and with what success?
Environmental management and environmental assessment have been practised around the world for up to 30 years. Over that time, environmental assessment has moved from 'first generation' environmental impact assessment to 'second generation' strategic environmental assessment. There are continuing efforts to link macro strategic environmental assessment to the assessment of the on-the-ground developments under the plan, policy or programme. But strategic environmental assessment is just one of many approaches that also includes cumulative effects assessment, risk assessment and other approaches. Also, certain principles are applied, such as win-win opportunities and the precautionary principle.
This paper begins with an overview of the shared challenges of environmental mainstreaming and SL approaches. Some of the practical lessons are presented in section 3, and section 4 describes some of the specific tools used in environmental mainstreaming. After the conclusion, short descriptions of the tools used in environmental assessment are provided.

Full text available through: http://www.livelihoods.org/info/linksevents_sub/linksevents_EnvSeminar.html

Steins, N.A. (2001) **New directions in natural resource management: the offer of actor-network theory.** *IDS bulletin*, Oct 2001, Vol.32, No.4, pp.18-25. Publisher: Institute of Development Studies: Brighton, UK.

Abstract:
The article offers theoretical insights from Actor-Network Theory (ANT) as to how natural resource management (NRM) perspectives might be enhanced. ANT asks us to abolish the conventional sociological practice of studying phenomena in terms of predefined categories and principles, as they hinder our analysis of how the stakeholders involved construct resource management processes and the way these constructions are used. In this analytical process, any (uncertain) outcome of NRM is regarded as an effect of the interplay amongst the different stakes in the resource and the way stakeholders continuously mobilise social and material resources in order to achieve their goals. Only by analysing how certain outcomes have been achieved can we develop our understanding of the dynamics and uncertainties involved in NRM. The article uses empirical examples from coastal management scenarios to illustrate these theoretical points.

Access through:
http://www.ids.ac.uk/ids/bookshop/bulletin/
Publisher address: Institute of Development Studies, University of Sussex, Brighton BN1 9RE, UK
Telephone: +44 1273 606261

Vira, B. Dubois, O. Daniels, S.E. and Walker, G.B. (1998) **Institutional pluralism in forestry: considerations of analytical and operational tools** in *Unasylva An international journal of forestry and forest industries* - Vol. 49 - 1998/3 - No. 194 - Accommodating multiple interests in forestry. Published by FAO.

Abstract:
Identifying resource interests stakeholders in the forest sector Grimble *et al.* (1995) define stakeholders as "all those who affect, and/or are affected by, the policies, decisions, and actions of the system; they can be individuals, communities, social groups or institutions of any size, aggregation or level in society. The term thus includes policy-makers, planners and administrators in government and other organizations, as well as commercial and subsistence user groups." identification of the principal stakeholders in the forest sector allows us to create a mental map of the range of interests involved in resource management situations. However, this definition is so broad as potentially to include the entire population. Clearly, not all stakeholders are in a position to participate directly in the management of forests, even though they may affect or be affected by activity in this sector. (adapted from author)

Access through http://www.fao.org/waicent/faoinfo/forestry/FODA/UNASYLVA/unasyl-e.stm

Authors origins:
Bhaskar Vira is with the Department of Geography, University of Cambridge, UK.
Olivier Dubois is a Research Associate at the International Institute for Environment and Development, London, UK.
Steven E. Daniels is with the Department of Forest Resources, Oregon State University, Corvallis, Oregon, USA.
Gregg B. Walker is with the Department of Speech Communication, Oregon State University, Corvallis, Oregon, USA.

Von Mirbach, Martin (2000) **No Magic Bullet: What forest certification won't do.** *Ecoforestry* Vol 15 # 1: Spring 2000. Victoria, BC: Ecoforestry institute.

Abstract:
The current interest in forest certification can be seen in the context of two influential factors. The first has to do with a growing public concern about forests and forest management around the world. In the late 1980s, in response to this concern, products began to be marketed with some claim about sustainability attached to it, such as "From sustainably managed forests." These claims were made by producers, manufacturers and retailers. In 1991, WWF International conducted a study of 81 of these claims and discovered that only three could in any way be substantiated. It was evident that there was a need for some independent way to evaluate and validate environmental claims being made about forest products (FOE 1993).
The second factor is the series of shifts taking place in the role of governments as regulators. A variety of trends have emerged, including regulatory "efficiency," deregulation, downshifting regulatory responsibilities to regional and local governments, off-loading them to the private sector, and an increasing reliance on voluntary measures to supplant regulatory ones. Forest certification is, in part, a response to the perceived inability or unwillingness of governments to set and enforce adequate standards and, in part, a furtherance of the trend towards voluntary measures in place of regulatory ones.
Forest certification exists at the intersection of these diverse and, at times, conflicting factors. As a result, there is a bewildering variety of expectations among various interests with respect to forest certification. This article will outline those expectations, briefly discuss the strengths and weaknesses of the major certification systems in Canada, and outline some of the limitations of, and concerns about certification, in general. (adapted from article)

Access through: www.ecoforestry.ca
Available at some Ontario university libraries including University of Toronto, University of Waterloo

Wang G. A.; Anderson D. H.; Jakes P. J. (2002) **Heritage Management in the U.S. Forest Service: A Mount Hood National Forest Case Study**. *Society and Natural Resources*, 1 April 2002, vol. 15, no. 4, pp. 359-369(11). Publisher: Taylor and Francis Ltd.

Abstract:
Simultaneous to the advent of ecosystem management in the United States, heritage management has occurred. Heritage resources are broadly defined as those resources that describe the past. Within the U.S. Forest Service, heritage management includes using knowledge and skills from diverse cultures in resource decision making. A case study from the Mount Hood National Forest in Oregon is presented. The case study illustrates an integration of ecosystem management and heritage management, especially in regard to American Indians. Four fundamental principles of ecosystem management to guide the heritage management process are using an ecological perspective, forming partnerships, promoting grass-roots participation, and using scientific knowledge.

Access through Taylor and Francis website: http://www.tandf.co.uk/journals/
Address: Taylor & Francis Group, UK Head Office: 11 New Fetter Lane, London EC4P 4EE
Pay per view through www.catchword.com/register.htm.

Warner, K. (2000) **Forestry and sustainable livelihoods.** *Unasylva: An international journal of forestry and forest industries* - Vol. 51- 2000/3, No. 202 "*Forests, food security and sustainable livelihoods*". Published by FAO.

Abstract:
Unasylva issue looking at different perspectives on issues of physical and economic access to food for forest dependent peoples. Articles are structured as a series of case studies from around the world to analyse the linkages between food security and problems such as degradation and deforestation. Further articles explore the effectiveness of various solutions based on community forestry approaches.

Available at: http://www.fao.org/waicent/faoinfo/forestry/FODA/UNASYLVA/unasyl-e.stm